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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/529,442

03/28/2005

Raffaello Mazzanti

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EXAMINER

TSOY, ELENA

ART UNIT

PAPER NUMBER

1792

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DELIVERY MODE

08/13/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/529,442	<b>Applicant(s)</b> MAZZANTI, RAFFAELLO	
	<b>Examiner</b> Elena Tsoy Lightfoot	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 24-46 is/are pending in the application.
- 4a) Of the above claim(s) 24-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 44-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/28/05</u>   | 6) <input type="checkbox"/> Other: _____                          |

***Election/Restrictions***

1. Applicant's election with traverse of Group II, claims 44-46 in the reply filed on July 9, 2008 is acknowledged. The traversal is on the ground(s) that there is a technical relationship between the separately grouped claims. Claims 44-46 are identified as reading on the elected species. Under the ADMINISTRATIVE INSTRUCTIONS UNDER THE PCT, page AI-58, which is available as Annex B to APPENDIX T of the MPEP, if there is a technical relation between the separately grouped claims, restriction should not be required. In this case, both of the separately grouped claims use a hardenable resin and this is a sufficient technical basis on which to link the claims. For these reasons, it is requested that the restriction requirement be withdrawn and an action be given on all claims. This is not found persuasive because even if the hardenable resin were a sufficient technical basis on which to link the separately grouped claims, the hardenable resin is a *known resin conventionally used in the art*, as evidenced by trade names recited in claim 46. Therefore, according to MPEP instructions, the separately grouped claims are not linked together due to the use of *well known* hardenable resin.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Objections***

2. Claim 46 is objected to because of the following informalities: Claim 46 recites "solvent based" and "solventbased". "solventbased" should be changed to "solvent based". Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claim 46 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

According to MPEP 2173.05(u), if the trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of the 35 U.S.C. 112, second paragraph. *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. In fact, the value of a trademark would be lost to the extent that it became descriptive of a product, rather than used as an identification of a source or origin of a product. Thus, the use of a trademark or trade name in a claim to identify or describe a material or product would not only render a claim indefinite, but would also constitute an improper use of the trademark or trade name.

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned

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with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 44-46 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 4, 11, 15, 16, 19, 24 of copending Application No. 10/482,538 in view of Rosenkranz et al (US 4339566). The application '538 discloses sealing surface micropores of ceramic substrate (See claims 1 and 4) with solvent or water based UV-curable composition (See claim 19) containing unsaturated resin such as urethane methacrylate resin (See claim 11). Thus, the application '538 discloses all limitations of claimed invention except for *pigments* in the coating composition. However, Rosenkranz et al teaches that an aqueous urethane acrylate resin (See column 5, lines 46-47) comprising pigments (See column 8, line 37) may be used for coating ceramic substrates (See column 8, lines 11-12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a pigmented aqueous urethane methacrylate resin in Patent '538 as UV-curable composition depending on particular use of a final product since Rosenkranz et al teaches that an aqueous urethane acrylate resin comprising dyes or pigments may be used for coating ceramic substrates.

This is a provisional obviousness-type double patenting rejection.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 44-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Sokol (US 20020110643).

Sokol discloses a method for sealing porous ceramic substrate comprising treating the substrate with UV-curable coating composition (See P3) comprising pigments, dyes or the like (See Abstract; P21).

It is the Examiner's position that the cured colored coating is firmly fixed to the ceramic substrate since it is formed by the method substantially identical to that of claimed invention.

It is held that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, claimed properties or functions are presumed to be inherent. See MPEP 2111.02, 2112.01. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

9. Claims 44-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuno (EP 393525).

Kuno discloses a method for manufacturing colored ceramic products comprising impregnating a *porous ceramic* material with a **liquid** dye-containing resin, and a step of hardening the impregnated resin (See Abstract). The resin is **acrylic** resin such as polymethyl

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methacryalte (PMMA) resin (See Page 4, lines 1-3). The resin is cured according to the hardening conditions of the resin (See Page 4, lines 1-2).

The Examiner takes official notice that it is a common knowledge in the art PMMA resin is *photosensitive* resin, as required by Claim 45.

It is the Examiner's position that the cured colored coating is firmly fixed to the ceramic substrate since it is formed by the method substantially identical to that of claimed invention.

10. Claims 44-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Desobry (US 5340701).

Desobry discloses a method for coating *ceramic* substrate with photocurable coating composition (See column 22, lines 36-39). An aqueous acrylic resin (See column 21, lines 25-27) comprising dyes, pigments, etc. (See column 21, line 33) may be used as the photocurable coating composition.

It is the Examiner's position that a ceramic substrate is porous *inherently* such that the aqueous resin penetrates the pores of the ceramic substrate, as required by Claim 44.

11. Claims 44-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Rosenkranz et al (US 4339566).

Rosenkranz et al discloses a method for coating *ceramic* substrate with an *aqueous* photocurable coating composition (See column 8, lines 7-12) to form a hard scratch resistant coating (See column 9, lines 7-9). An aqueous urethane acrylate (claimed acrylic or urethane resin) (See column 5, lines 46-47) comprising pigments (See column 8, line 37) may be used as the photocurable coating composition.

It is the Examiner's position that a ceramic substrate is porous *inherently* such that the aqueous resin penetrates the pores of the ceramic substrate, as required by Claim 44.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuno.

Kuno is applied here for the same reasons as above. Kuno fails to teach that the liquid acrylic resin water based or organic solvent based acrylic resin. It is the Examiner's position that liquid acrylic resin includes *any* diluent including water and/or organic solvent since Kuno does not limit its teaching to a particular solvent. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used water based or organic solvent based acrylic resin as a **liquid** dye-containing acrylic resin since Kuno does not limit its teaching to a particular solvent.

14. Claims 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuno in view of Curtiss et al (US 6740163).

Kuno, as applied above, fails to teach that the hardening conditions for the PMMA resin is exposure to radiation.



Curtiss et al teaches that a solvent based PMMA resin may be used as a **photoresist** (See column 8, lines 45-50; column 2, lines 9-12). In other words, Curtiss et al teaches that PMMA resin is *photosensitive* and may be used as a solvent based resin.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a solvent based photosensitive PMMA resin in Kuno as a liquid coating material since Curtiss et al teaches that a solvent based photosensitive PMMA resin may be used as a liquid coating material.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy Lightfoot whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Friday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy-Lightfoot, Ph.D.  
Primary Examiner  
Art Unit 1792

August 13, 2008

/Elena Tsoy Lightfoot/

Primary Examiner, Art Unit 1792